## ABSTRACT

An application programming interface for use in a network device includes at least one control module that is capable of controlling a forwarding plane of the network device. In particular, the network device forwards packets across a network, and includes the forward plane for processing data packets. The application programming interface includes an input module that receives function calls, at least one control module (mentioned above) that receives input control data via the function calls, and an output module that forwards output control data from the control module. The control module produces the output control data based upon the input control data. The output control data is capable of controlling execution of the forwarding plane.